Risk Communication & Public Involvement

National Center for
Communicating Complex Science & Promoting Public Involvement
Office of the Science Advisor
US Environmental Protection Agency

Workshop Objectives
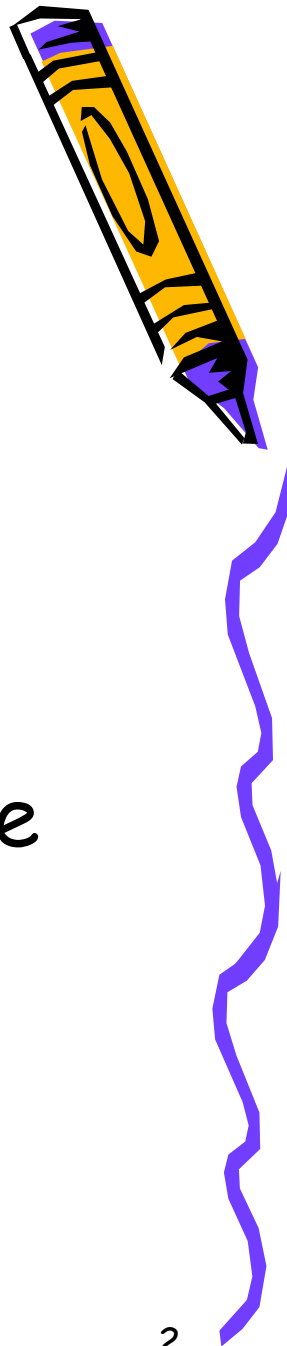
- Provide insights and tools
- Provide some experiences
- To make your experience enjoyable

Facilitators

- Alvin Chun, Director
- Center for Communicating Complex Science & Promoting Public Involvement, Office of the Science Advisor, USEPA, HQ
- 75 Hawthorne Street, PMD-1 (Place Based in Region 9)
- San Francisco, CA 94105
- Phone: (415) 972-3720 Email: chun.alvin@epa.gov

- Arnold Den, Senior Science Advisor
- Air Division, USEPA, Region 9
- 75 Hawthorne Street, AIR-6
- San Francisco, CA 94105
- Phone (415) 947-4191 Email: den.arnold@epa.gov

- Angeles Herrera, Chief, Superfund Community Involvement Office
- Superfund Division, USEPA Region 9
- 75 Hawthorne Street, SFD-3
- San Francisco, CA 94105
- Phone (415) 972-3144 Email: herrera.angeles@epa.gov

- William Steuteville, Team Leader
- Superfund Division, USEPA Region 3
- 1650 Arch Street, 3HS33
- Philadelphia, PA 19103
- Phone: (215) 814-3264 Email:steuteville.william@epa.gov

- Wendy Thomi, Senior Community Involvement Coordinator
- Superfund Division, USEPA Region 2 (on detail from Region 8)
- 290 Broadway Street, 26th Floor
- New York City, NY 10007
- Phone: (212) 637-3669   (Email: thomi.wendy@epa.gov

- Dianna Young, Senior Analyst
- Office of Solid Waste and Emergency Response
- 1200 Pennsylvania Avenue, N.W., 5106G
- Washington, D.C. 20460
- Phone: (703) 603-0045 Email: young.dianna@epa.gov

Hypothesis

- We need to be clearer as an Agency that unless we are trusted and credible, it may make it difficult for "people" to allow us to do our job despite following rules, regulations, policies, and having good intentions. One result that is often not explicit is the need to earn "people's" support. If this result is not explicit it is likely not to be taken seriously or achieved despite common sense.

- Definition: "People" refers to both people within and outside the Agency.

- Two objectives that will help earn support include building trusting relationships and having the willingness and ability to work things out. This is another way of saying "involving people."

- To establish trusting relationships requires us to be understanding of different points of views, transparent in our thinking, able to communicate to be understood, able to manage our actions and words to reinforce our intentions.

- If people trust you they may give you their support.

- If people trust you they still may want to work it out before they give you their support.

- The questions that remain are: Is "people's support" a legitimate result to work on? If so, do we know how to get it done? And do we have what we need to do it well?
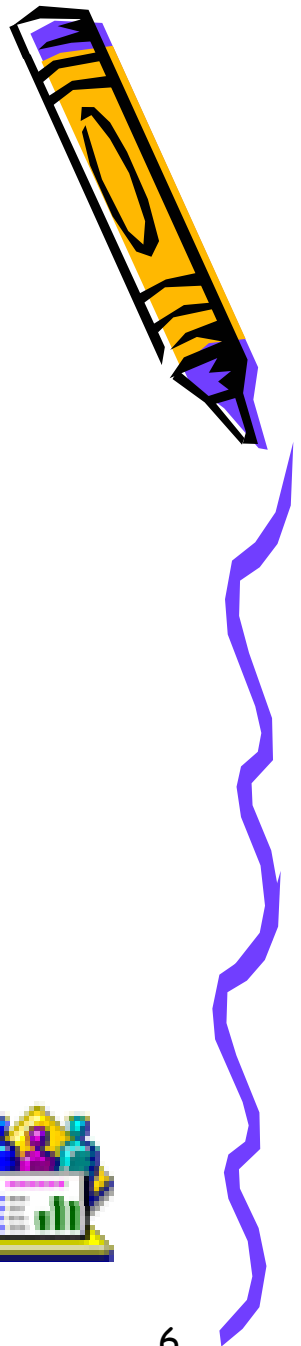
DESIRED RESULTS?

- TRUST ?
- RELATIONSHIP ?
- SATISFACTION ?
- ASSURANCE ?
- RESPECT?

ACCEPTED

Traditional Results

- Number of Inspections Conducted
- Number of Violations
- Number of Health Investigations
- Number of Permits Issued
- Number of Regulations Generated

Hypothesis

- Believe it or not you are in a very powerful and influential position if you can maintain a trusting relationship with people. When you do something to harm the relationship, people can disengage and seek others who will listen to them such as your boss, your boss's boss, the elected official, the news media, the activist, and other concerned citizens. Then you have lost your influence and ability to negotiate … this is a loss of "power." The consequences can be quite devastating to all your good work, the reputation of your entire organization and yourself. When people are frightened, and upset they can view risks as being high and be motivated to act accordingly. It is possible that when enough people feel the same way, they can effectively change a decision despite all your careful work. Because of this potential power that people have, they may be more deserving of the title, "Boss." If you see people as potential bosses, your attitudes will tend to be more respectful, open, and flexible. If you don't see people as potential bosses, your attitudes will be less respectful, less open and more inflexible.
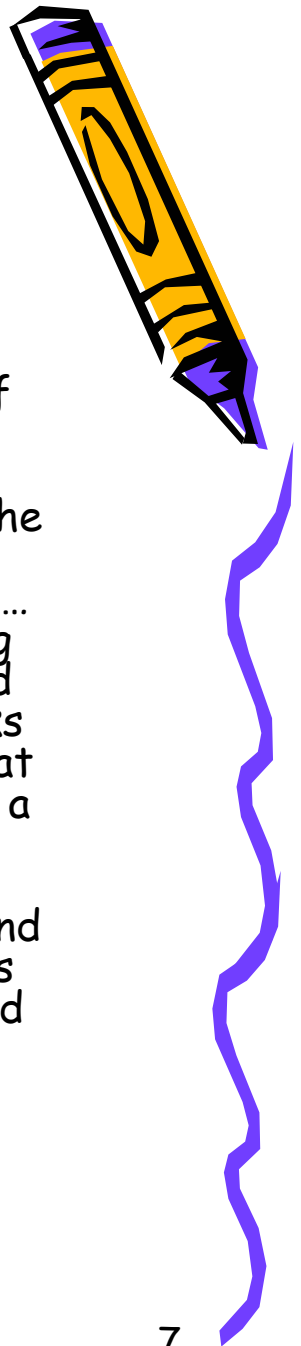
WHO'S THE BOSS?
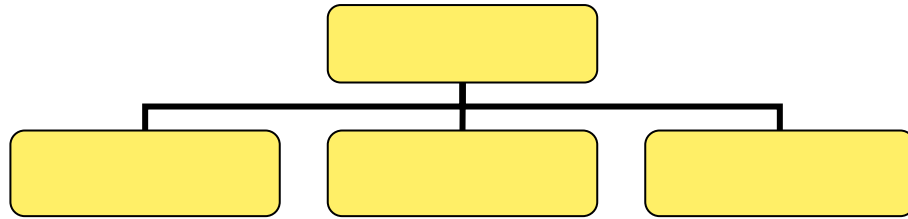
Commentary

- If we believe that the public has the potential to reverse our decisions, we may be more willing to see them as potential bosses and have the appropriate attitudes and actions. This does not mean caving in; rather it means treating people with respect, making sure that expectations are clear, and having a willingness to negotiate within those expectations. Isn't that how we treat our bosses in the office?

- The potential problem with our attitudes is that they are influenced by the "traditional" results for which we are accountable.   If we were accountable for the "desired" results which help to earn trust and credibility wouldn't it make it easier to accomplish the traditional results? One then might say that we need to be clearer about the results we want and make sure our work is directed accordingly.

✓ APPROPRIATE ATTITUDES

- FOR COMMUNICATION?

- FOR NEGOTIATING OR WORKING WITH PEOPLE?

Commentary

- We need to recognized that public perception of our organization may be lumped in with people's bad and memorable experiences with other government agencies. The common public perception of most government agencies is that the people in them are Lazy, Lying, Dumb, Jerks. It's not until we distinguish ourselves and earn people's respect that their perceptions can change. This takes work. It may be difficult to accept but it is our problem if the public doesn't believe or trust us. If we accept the potential negative views, then we can begin to believe that working on our relationships and earning trust are important results to achieve.

PERCEPTIONS OF YOU?

- LAZY   -   ❌ Not Committed
- LYING   -   ❌ Not Open
- DUMB   -   ❌ Not Knowledgeable
- JERKS   -   ❌ Not Empathetic

Commentary

- You are all probably committed to your work, open or forthcoming with information, knowledgeable or want to be, and try to be understanding of different points of view. The problem is that most people won't know that or believe it, and it becomes our problem to correct those perceptions.

- Commonly what most people want to know first is how understanding and open you can be before they will be interested in how smart and hardworking you are. Interestingly, what gets us credibility in the office is just the opposite; in the office we care more about how smart and hardworking someone is and less about how understanding and open they are. Unfortunately, the model that gets us positive recognition in the office is the model that is likely to get us negative recognition outside the office. So the order of what we communicate through our actions is important, i.e., people want to first know how understanding and open we are before they will be interested in how hard we work and how expert we are.

PERCEPTIONS OF YOU?

- **COMMITTED** - Hard Working

- **OPEN** - Transparent
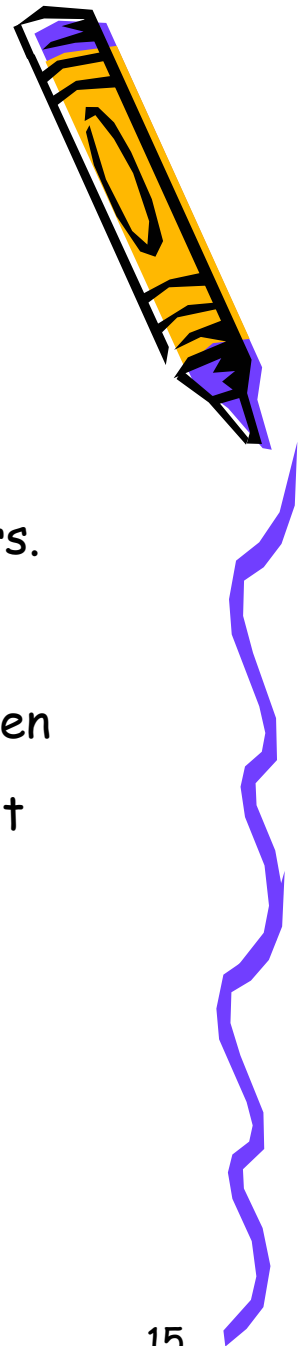
- **KNOWLEDGEABLE** - Smart

- **EMPATHETIC** - Understanding

Commentary

- If we understand the potential losses people may be experiencing, we may be more willing to accept their behaviors. If we also believe that people may be very influential (i.e., bosses), that may give us the attitude to respect and listen first rather than to explain or be defensive. When people experience or think they will be experiencing losses, they often go through a grieving process. If we accept that, we may be more willing to adjust our behavior and be less likely to take it too personally.

TYPES OF LOSSES

- Trust
- Health
- Environment
- Life
- Fairness
- Control

- Money
- Property Value
- Job
- Quality of Life
- Peace of Mind
- Credibility
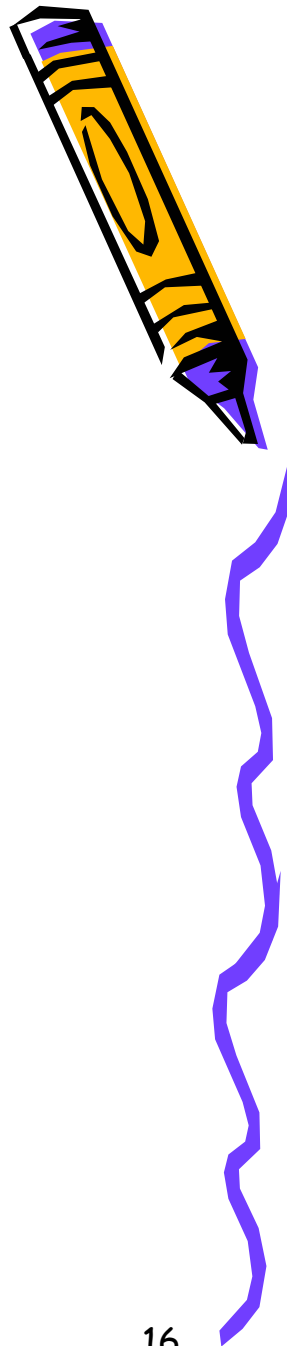
Commentary

- There are typically five stages of grief and people go through them in a non linear fashion, i.e., when people get depressed they may go back to anger or denial.

- We can either help them get through it or make it harder, e.g., when people are angry it helps to hear them out and not interrupt them when the are talking or lashing out. Traditionally and with good intentions, we often treat people's anger with information believing that if they only understood, they wouldn't be angry. When people are angry they usually want to be heard first because it is a way of acknowledging their feelings (see the Crisis Communication Slide) which will help to lessen their anger. Understanding people's anger by actively and sincerely listening, will give you some insight on what they see the problem to be. This is valuable since it will give you a handle on "the problem" from their perspective, and allow you to address it if possible. Until people believe you understand their problem, they may continue to be angry or become more angry and frustrated. How to do treat your boss when they are angry? How do you treat a loved one when they are experiencing a loss and are angry?
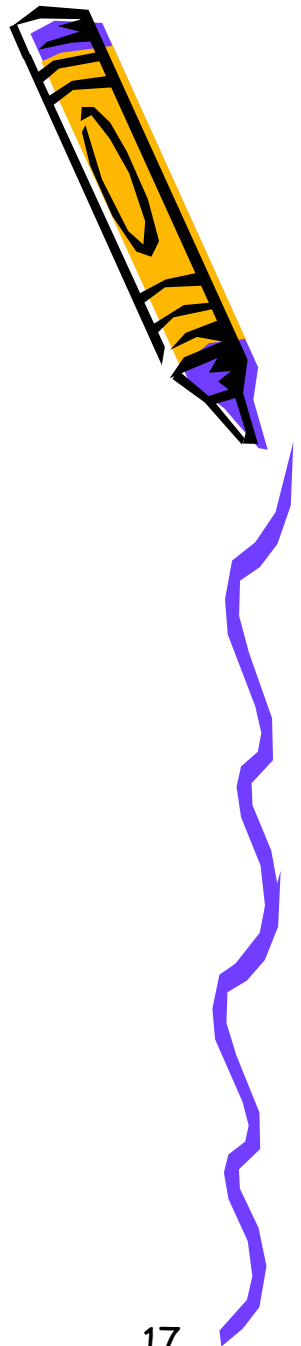
GRIEF PROCESS

- Denial
- Anger
- Discussion/Negotiation
- Depression
- Acceptance
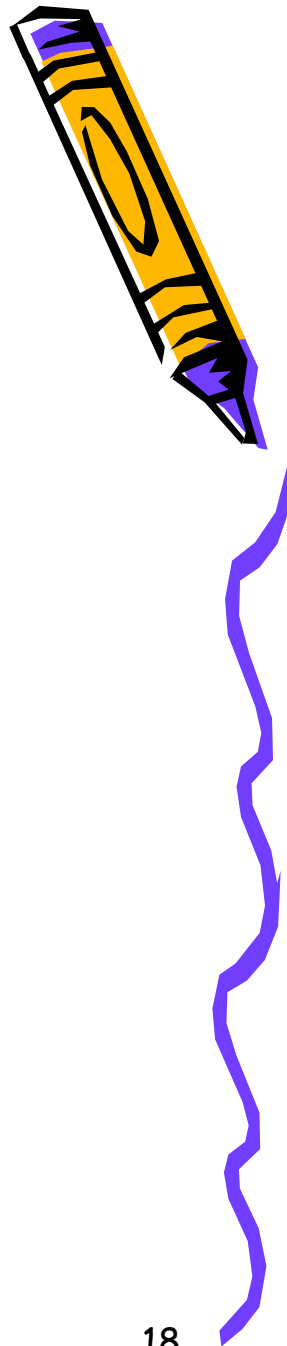
Response To Anger

- Allow and Respect It
- Don't Interrupt
- Understand What It's About
- Acknowledge What You Understand
- Ask For Permission to Respond

Commentary

- When people are angry or scared, they may feel like they are in a crisis. In handling a crisis, it's important to have a good reputation or relationship so that people will listen to you. When a good relationship or reputation hasn't been established, it will be important to acknowledge people's concerns, share with them what you know, don't know, how you feel and what you are doing or plan on doing; this is being open or transparent. The more information you share gives people greater control and confidence and is a way of involving people so that they will be less likely to let their imagination run wild. Lastly, it will be important to provide people with additional control such as options on actions which they can take, or negotiate with them on things they can do, e.g., providing a contact person to speak with, or giving them precautions to take, or danger signs to look out for. To heighten a crisis, you can do the opposite, i.e., disregard and ignore their concerns, keep them in the dark, and provide no way they can access help or help themselves.

CRISIS COMMUNICATION

1. BUILD TRUSTING RELATIONSHIPS
2. ACKNOWLEDGE PEOPLE'S VIEWS
3. GIVE THE "FACTS"
4. NEGOTIATE SOLUTIONS OR GIVE OPTIONS

Bringing Out the Best in People

1. BUILD TRUSTING RELATIONSHIPS
2. ACKNOWLEDGE PEOPLE'S VIEWS
3. GIVE THE "FACTS"
4. NEGOTIATE SOLUTIONS OR GIVE OPTIONS

Leading Effectively

1. BUILD TRUSTING RELATIONSHIPS
2. ACKNOWLEDGE PEOPLE'S VIEWS
3. GIVE THE "FACTS"
4. NEGOTIATE SOLUTIONS OR GIVE OPTIONS

Commentary

- If our reputation is bad or unknown we may by default be communicating high risk and it will be necessary to devote work to regaining trust and credibility.
- If our attitudes are disrespectful, our actions will reflect it and the perception we present to people is one of high risk and that we are doing things that are unacceptable.
- Unless our words match our actions, actions will speak louder and the inconsistency will likely be read as high risk.
- Our inactions and silence may be perceived as high risk if we don't explain them.

RISK COMMUNICATION IS CONVEYED THROUGH

- Our Reputation
- Our Attitudes & Actions
- Our Words
- Our Inactions
- Our Silence
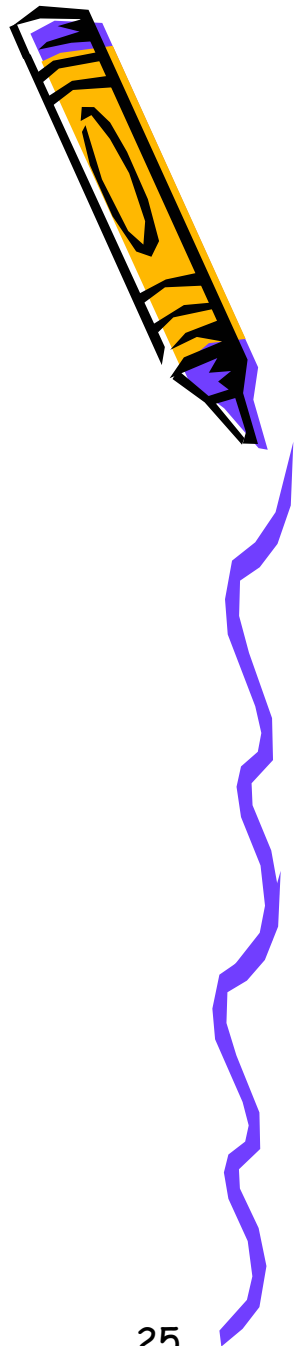
Commentary

- If we don't communicate sincerely, and in a way people can understand, it may be assumed to be scary or high risk. For complex scientific information, it will be important to set a goal for any communication and gear it to the audience's language, concerns, and needs.

- If it isn't perceived to be sincere and understandable, it will also be viewed as high risk.

- If we talk about things that people aren't interested in, we will appear to be out of touch or avoiding the issue; this will likely generate perceptions and feelings of high risk.

- Example: The risk of you dying from using that pesticide is 7x10E7 if we assume the worst case. You're more likely to be hit by lightning (didn't you know). So don't worry (what's the big deal).

- The example is trying to communicate that the pesticide is safe but it is not understandable to a normal intelligent citizen because it's not in their language. When it is jargony and not understood people may assume it's bad especially when the words "risk," "7x10E7," "assume" and "worst case," all suggest that it is bad. The comparison to lightening may be taken as an insult and people usually don't want to be insulted. Nor do they want to be patronized when their concerns are shrugged off by, "Don't worry." As a whole this message can suggest just the opposite of what you had intended. People would rather have you say it more directly because that is usually what they want, e.g., It is safe to use this pesticide if you follow the instructions. We know this because ………. Does that address your concern or should we have more of a discussion?
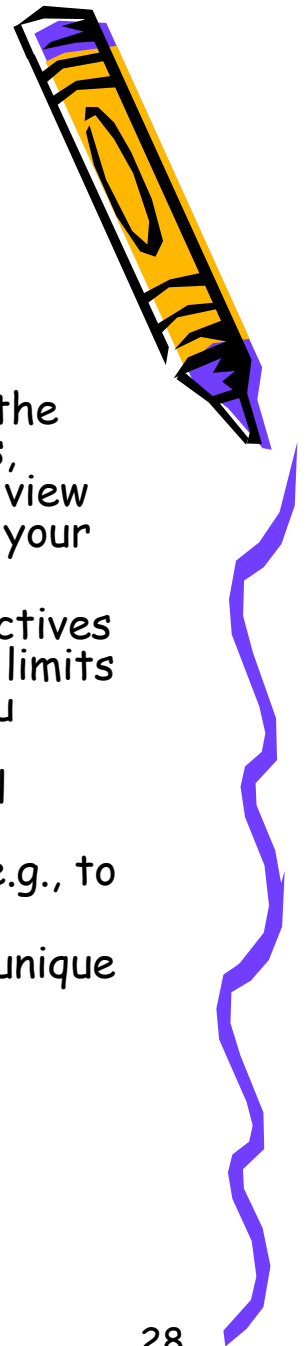
EFFECTIVE COMMUNICATION

- Sincere
- Clear
- Perceived to be Sincere and Clear
- Wanted

Commentary

- To plan strategically, it will be important to get a broad view of who the likely stakeholders are or will be, their particular interests, concerns, questions, possible demands, and their view of you and based on that view what they expect you will do. This is another way of saying "knowing your audience."

- Based on that important information, you can then set practical objectives that need work to get you the results you want. Of course, you have limits on what you can do so this understanding of the audience will help you direct your resources and activities to the most needy or influential stakeholders. This information may also be used to justify additional resources to help maintain your engagement rather than have the engagement passed up to higher levels or outside your organization, e.g., to the head of your dept., to elected officials, to the news media.

- Given the objectives you have set, and considering the stakeholders unique needs and perspectives, you will be in a position to decide on the appropriate actions needed to get the results you have in mind.

STRATEGIC PLANNING

- AUDIENCES – Who, Concerns, Interests, Questions, Demands, Perceptions, Expectations?

- OBJECTIVES –The Results?

- HOW BEST TO ACCOMPLISH - GIVEN WHAT WE KNOW? – The next steps?
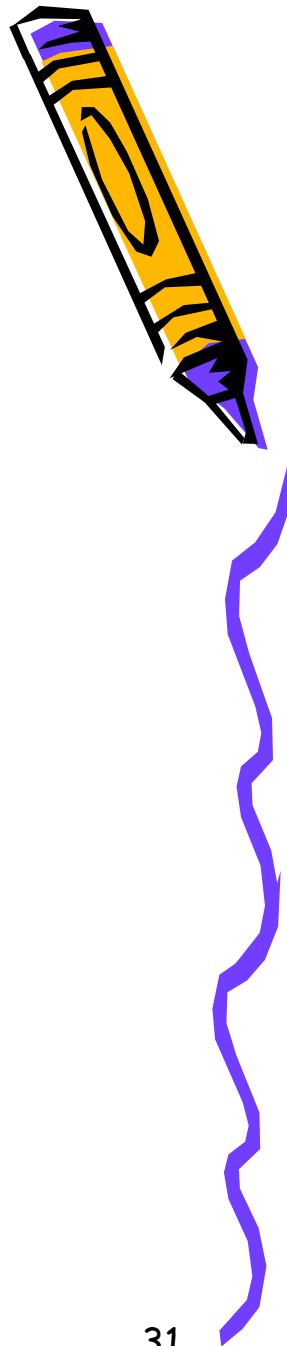
Commentary

- Anticipating people's demands will allow you to test the limits of your organization's ability to meet those demands and allow you to set realistic expectations and manage them.

- It will make you look more knowledgeable and confident.

- It will help to minimize surprises and embarrassment for your organization.

DEMANDS?

- Satisfaction
- Assurance
- Control
- Respect
- Enforcement
- Intervention
- Resolution

Commentary

- What people expect from you given your organization's reputation and history may be very different from what they would demand, e.g., If your organization is not known or has a bad reputation, people may not expect too much or nothing at all. This may be an initial advantage because doing something "small" may booster your credibility tremendously. Afterwards, the work may be to raise expectations to a higher and practical level so that people will maintain engagement rather than turn to others who can better meet their demands.
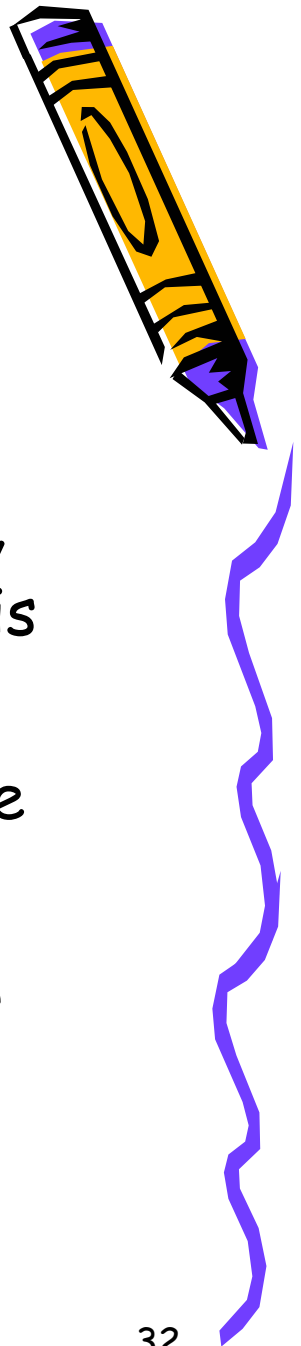
EXPECTATIONS?

- Enforcement?
- Intervention?
- Resolution?
- Not Much?
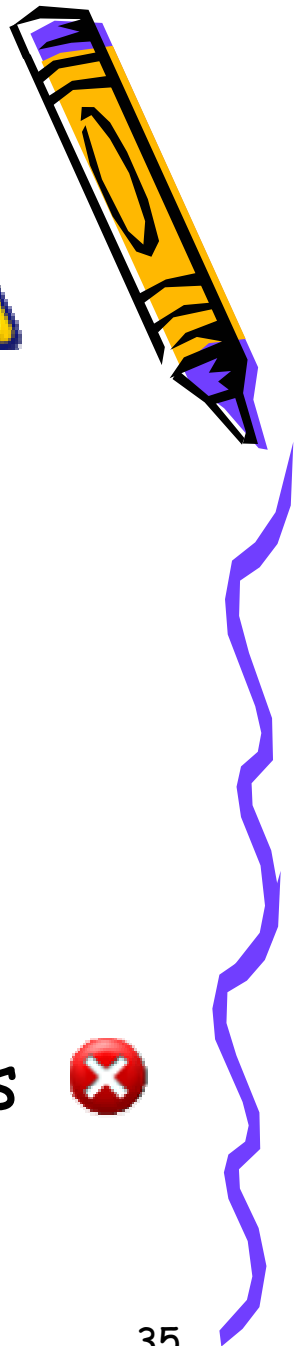- Same Old …. Same Old?
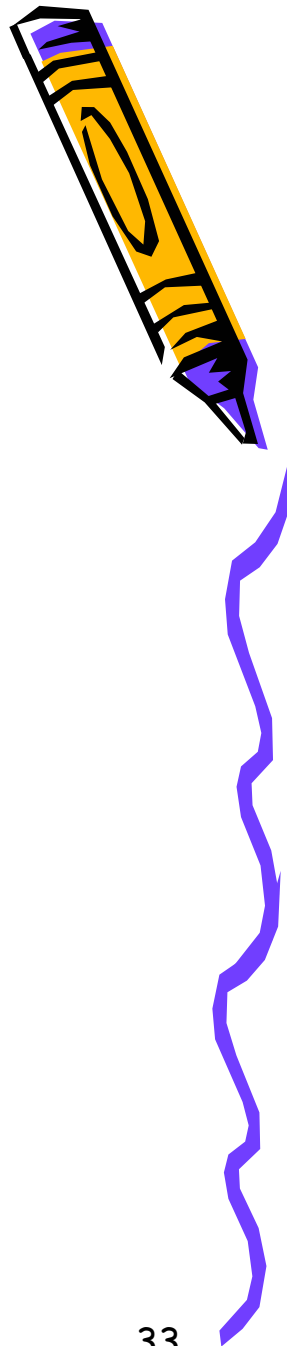
Commentary
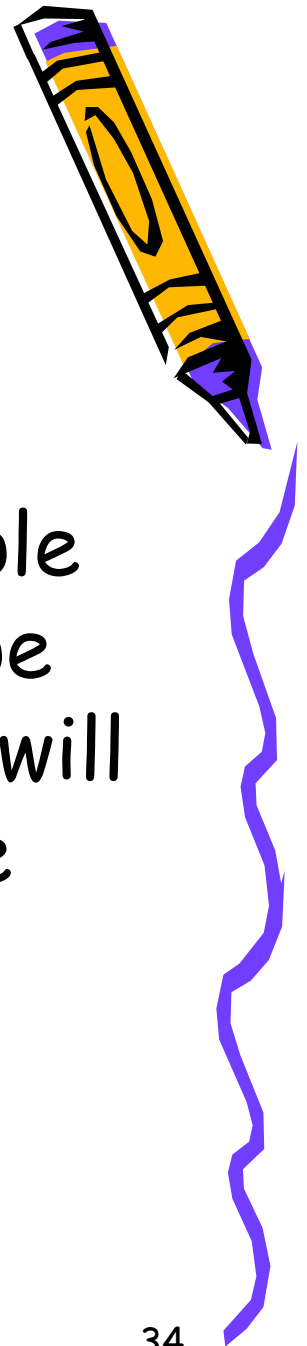
- We should be clear about what we mean when we want to involve people in our work. Specifically, what type of input will be considered, how it will be used and who will be making the decisions.
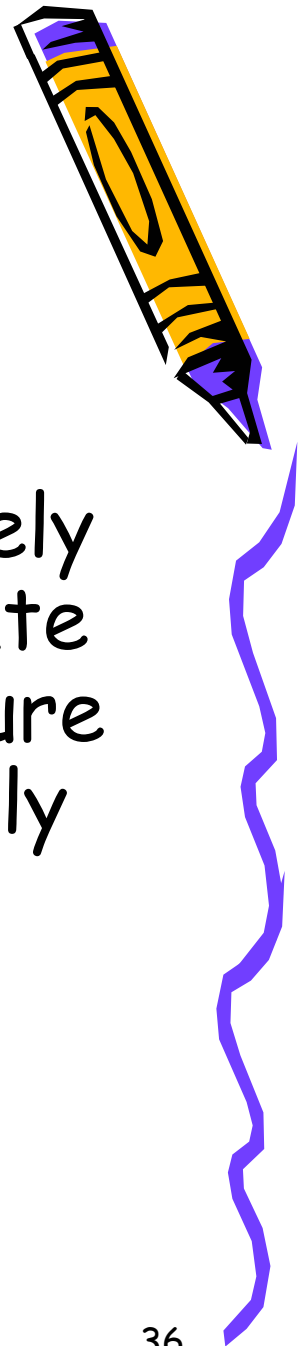
Managing Expectations

- You Decide?
- We Decide?
- I Decide With Some of Your Input?
- I Decide With Your Limited Input?
- I Decide And Let You Know?
- I Decide Without Letting You Know?
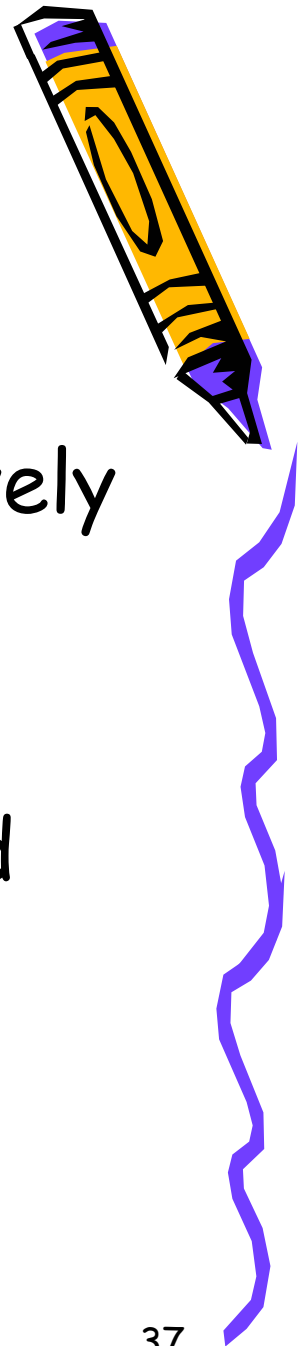- I Decide Without Setting Expectations

Commentary

- The collective work within your organization to understand the likely questions and to develop appropriate answers is an effective way to insure that everyone can speak confidently with one voice. This will help to increase your organization's credibility and trust.

Questions?

- Anticipate Questions and Collectively Work on Appropriate Answers So That All Of You Will Be More Comfortable, Confident and Convincing …. Builds Credibility and Trust (See "Typical Questions & Sample Responses" Handout)

Commentary

- While there are many appropriate ways to answer questions, it is important to first understand the question and its emotional content without interruption before attempting to answer.

- Please refer to the Handout: "Public Meeting – Typical Questions & Sample Responses."
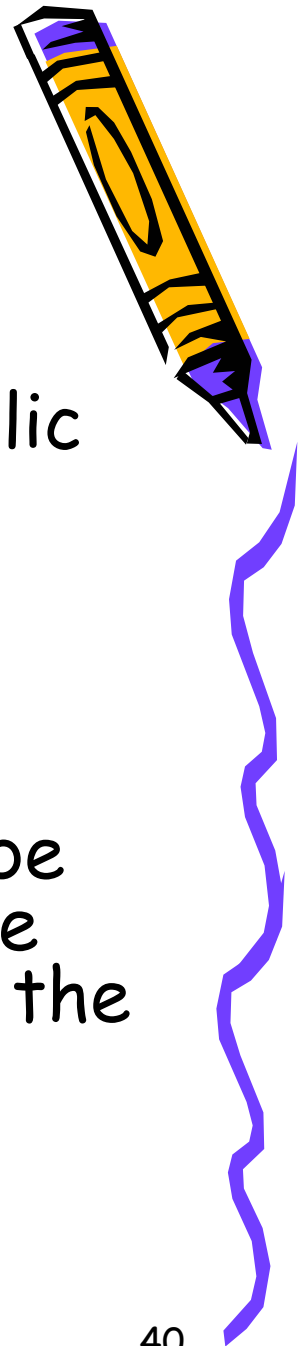
ANSWERING QUESTIONS

- ACKNOWLEDGE THEIR QUESTION AND EXPRESS YOUR UNDERSTANDING OF THEIR QUESTION BEFORE ATTEMPTING TO ANSWER

- PROVIDE A DIRECT ANSWER OR CONCLUSION WITH THE SUPPORTING JUSTIFICATION OR RATIONALE

- ENCOURAGE DISCUSSION TO CLARIFY

Commentary

- There are many ways to involve the public from informing them to having them be part of the decision making. The appropriate ways to involve people will depend on our objectives and their constraints and needs. While Public Meetings may be a requirement, it will be strategic to see if there are other more appropriate means that help us achieve the results we want.
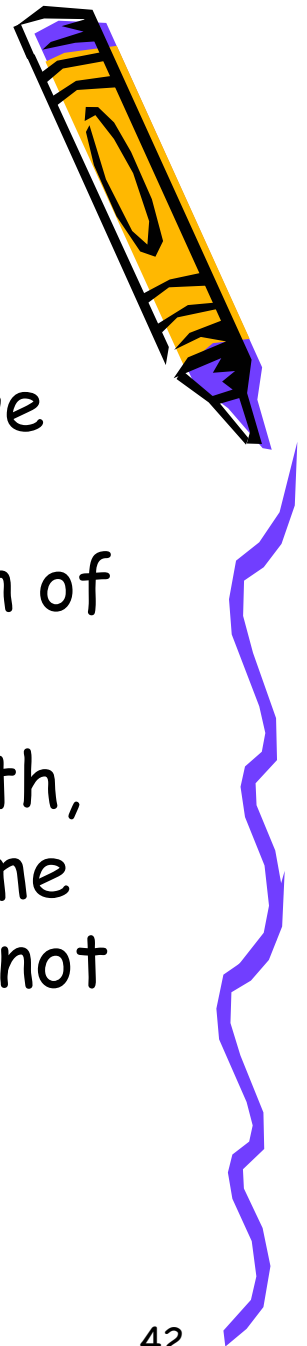
Examples of Public Involvement

- News Release
- Flyers
- 1-on-1 Meetings
- Their Meetings
- Open Houses

- Public Meetings
- Public Hearings
- Public Events
- Public Availability

Commentary

- We need to understand and acknowledge the values and interests people have because it can relate to their definition of what is "safe."

- Our definition is usually limited to health, environment, and safety issues with some interests in other values which we may not have any regulatory authority.
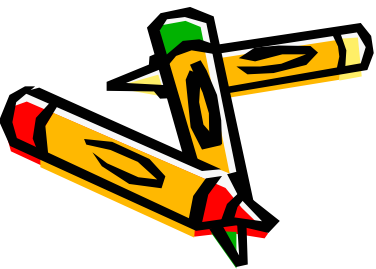
What Is Safe?

- Health
- Security
- Wealth
- Peace of Mind
- Property
- Family

- Appearance
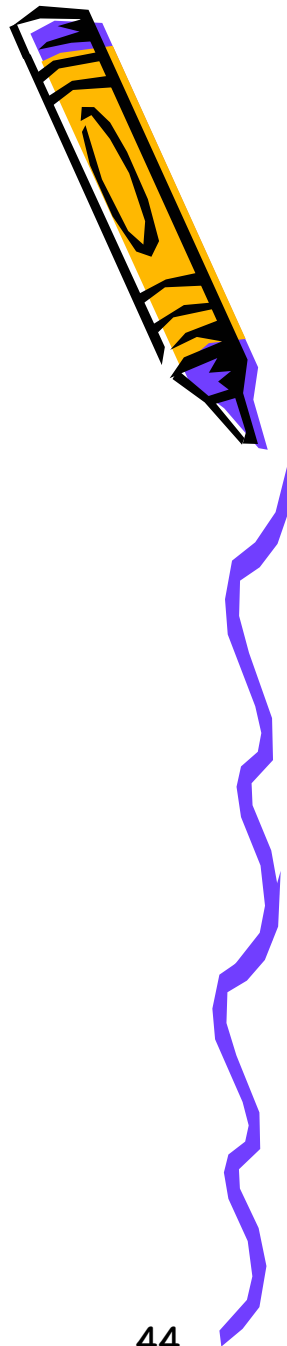- Convenience
- Environment
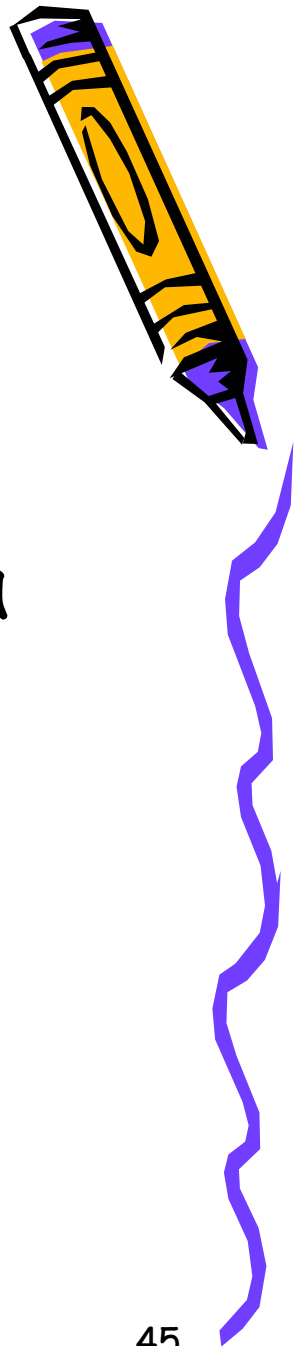- Predictability
- Business
- Quality of Life

43

Strategic Planning

- Stakeholder Audiences?

- Objectives?

- How to Best Achieve Each Objective?

Working With the News Media
-Optional Discussion-

Commentary

- There are many common problems which can arise when we are not trained in working with the media. Some of them include fear, misquotes, out of context, and sensationalization to name a few.

- There are solutions to all these problems and they may sound uncommon or even awkward, but if you keep in mind that the goal of your media interview is to get your message across then it will become logical but still awkward. The awkwardness can be overcome with some basis understanding of how the media works along with some basic skills and practice.
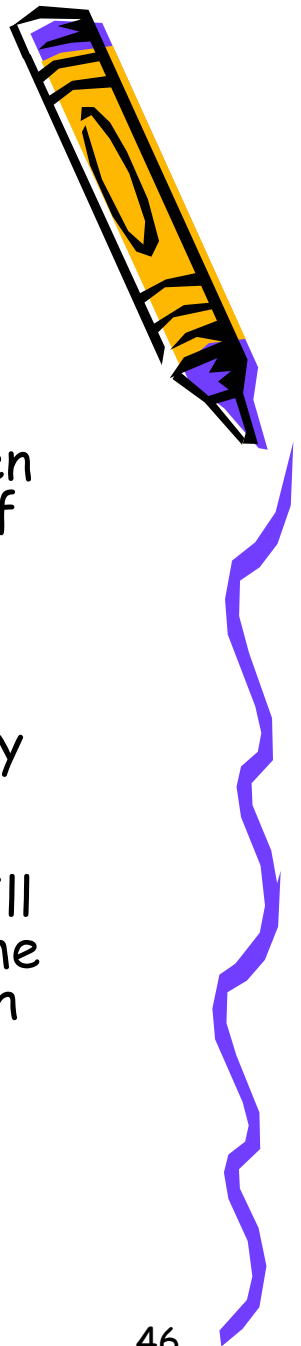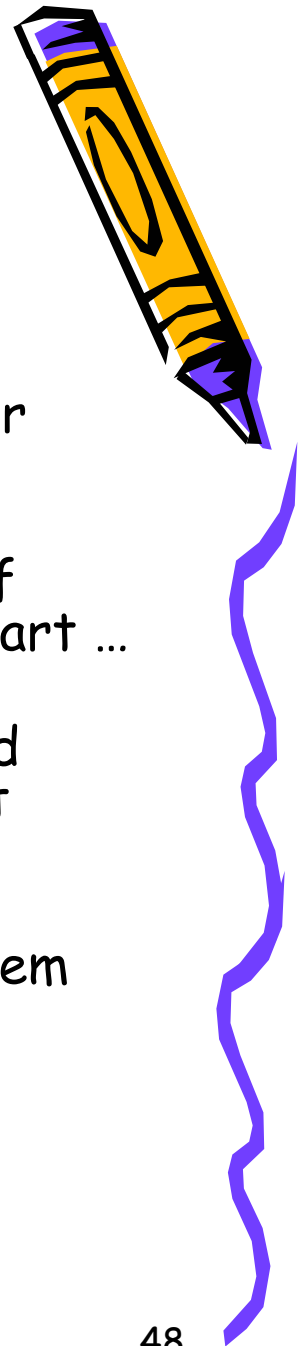
DISCUSSION

- Common Problems

- Uncommon Solutions

Commentary

- The news media's business is to get stories before their competition that will capture the interests of their audience or customers.

- Reporters are looking for stories that have elements of controversy, fear, intrigue, or things that touch the heart … in other words, things that have human interests.

- Different media, e.g., newspaper, radio, TV, journal, and various magazines have different audiences who expect different things which reporters try to satisfy.

- The way to approach the media is to understand the different needs of the media and working to satisfy them with your story in mind.

Understanding the Media

- What is News?

- What Are Reporters After?

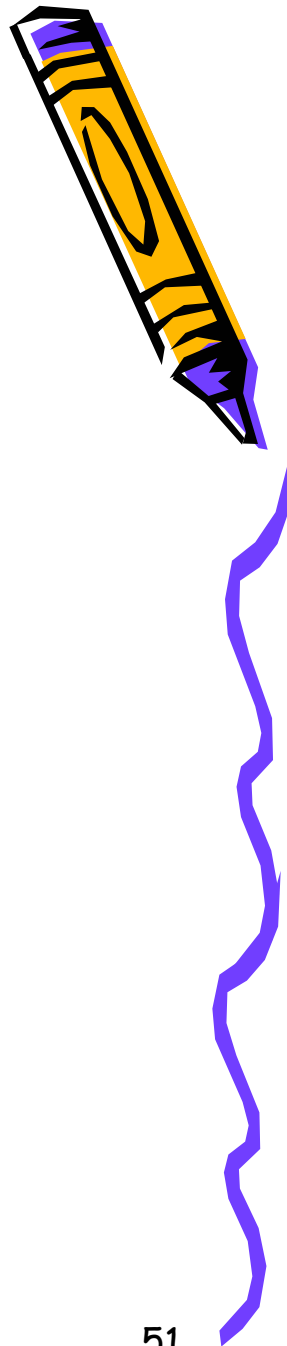- How Do You Approach It?
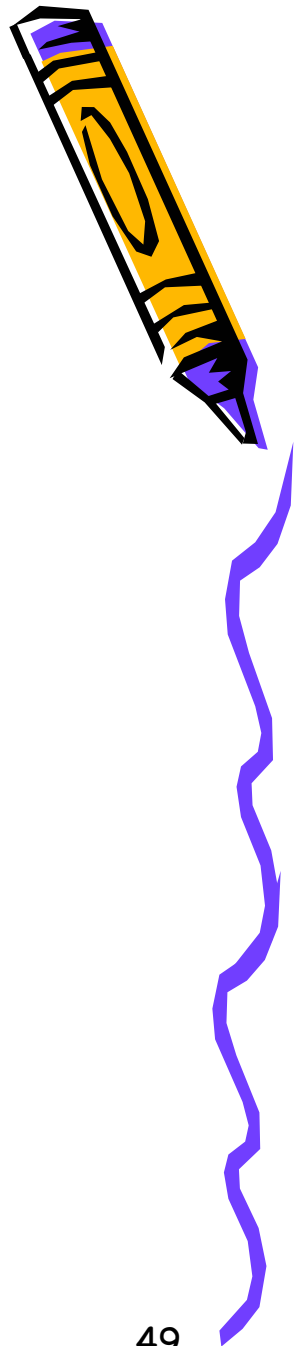
What is News?

- Must be Interesting

- Depends on the Audience
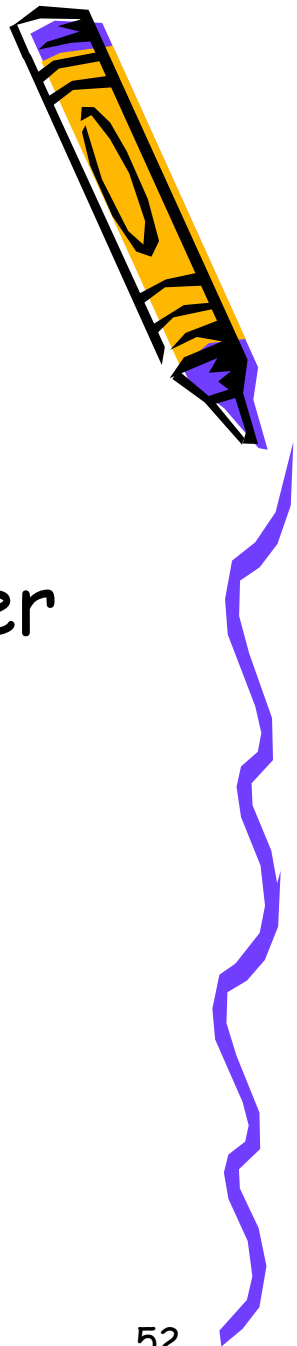
- Depends on the Type of Media

What Are Reporters After?

- An Interesting Story

- A Timely Story

- The Best Story

How Do We Approach It?
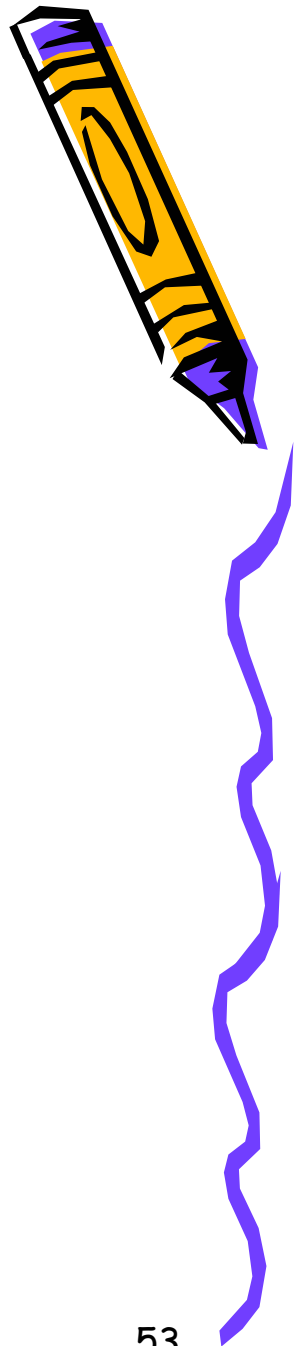
- Understand Agency Policy
- Know Your Public Affairs Officer
- Get Training
- Work With Your Public Affairs Officer
- Practice

News Media Policy

- We Live in a Fish Bowl

- Citizens Have a Right to Know

- There Are a Few Exceptions

Exceptions

- Enforcement Sensitive Cases

- Confidential Business Information

- Personnel Information
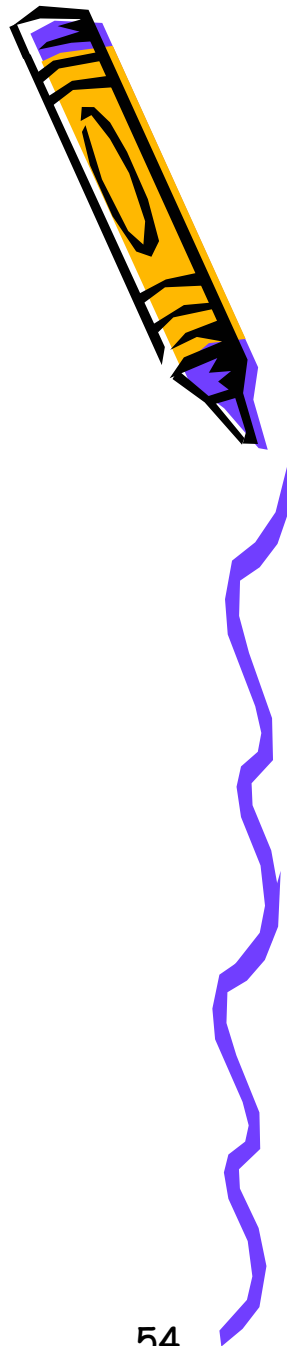
Just the Basics on Newspaper Stories
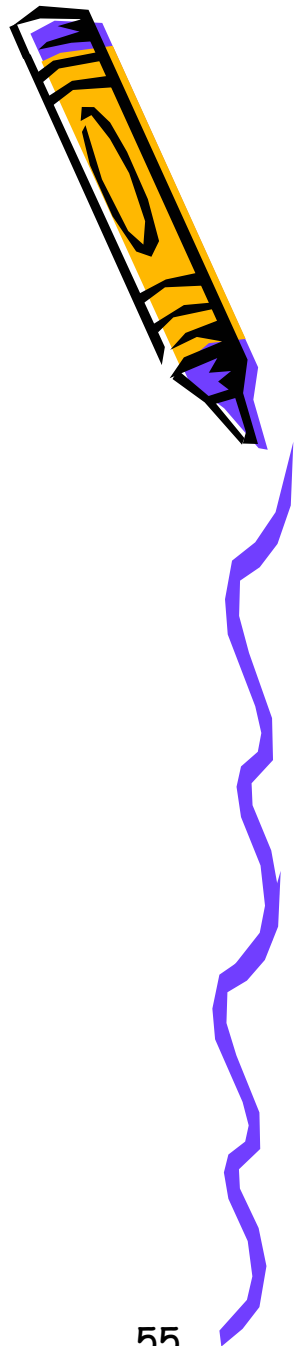
The Practice

- Take Control of Your Situation:
- Ask For The Reporter's Name
- Ask About The Topic & Deadline
- Promise That Someone Will Call Back in Time
- Coordinate with Public Affairs
- Prepare Your Story or Messages
- Run Your Story by Public Affairs
- Practice Sticking to Your Story
- Call Back With Your Story
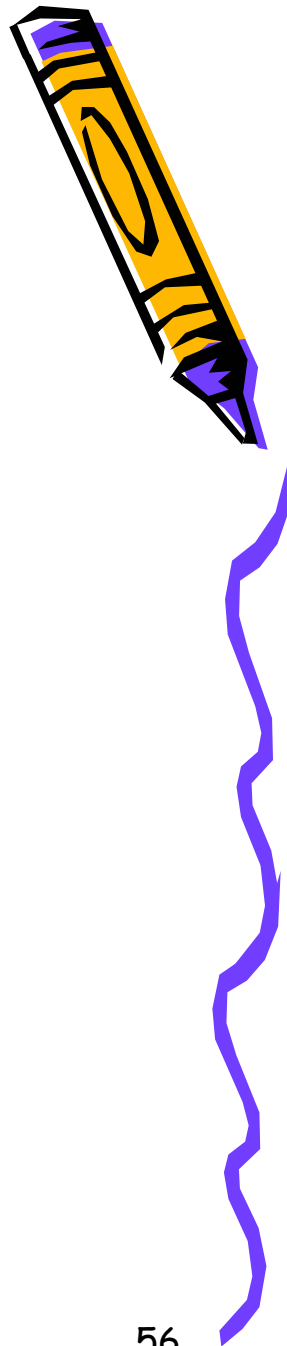
Your Story
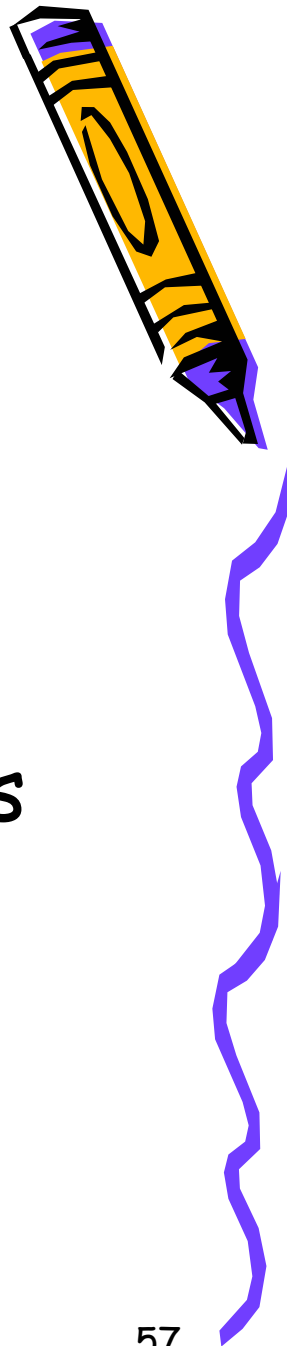
- Decide on The Goal of Your Story
- Have Up to 3 Messages in Your Story
- Messages Should Be in Plain Terms
- Messages Should be Concise
- Messages Should be "Quotable"

Sticking To Your Story

- You Are Speaking Officially

- Answer Only Questions That You Are Qualified to Answer

- Give Short Answers and Bridge Back to Your Messages

Officially Speaking

- It's For the Record, Always
- Pause before speaking and:
- Imagine What You Say on A Billboard
- Imagine What You Say Being on TV
- Imagine What Your Boss's Reactions
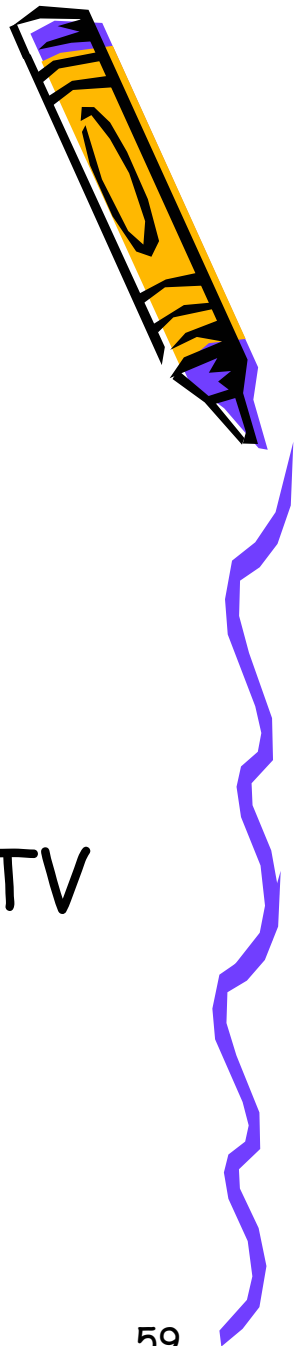
Questions With No Answers
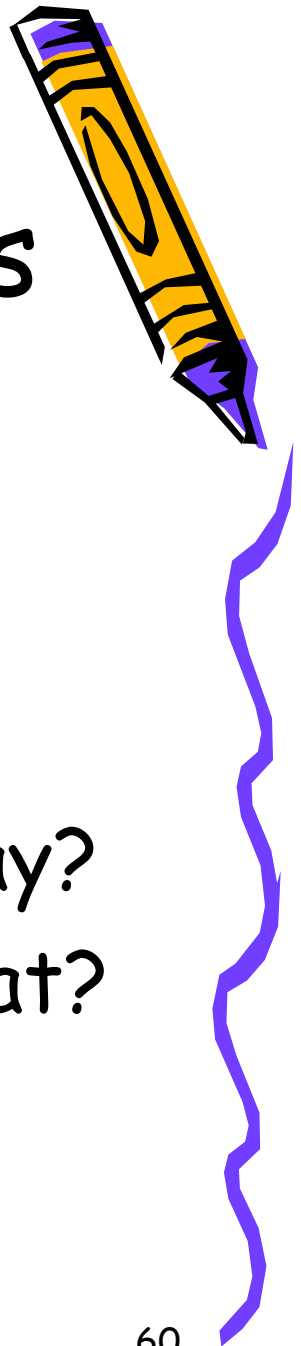
- What if ……..
- Either ….. Or …… Which one is it?
- You're …… (an accusation)
- Off the record, what would you say?
- I heard ….. What do you say to that?

Bridging Phrases
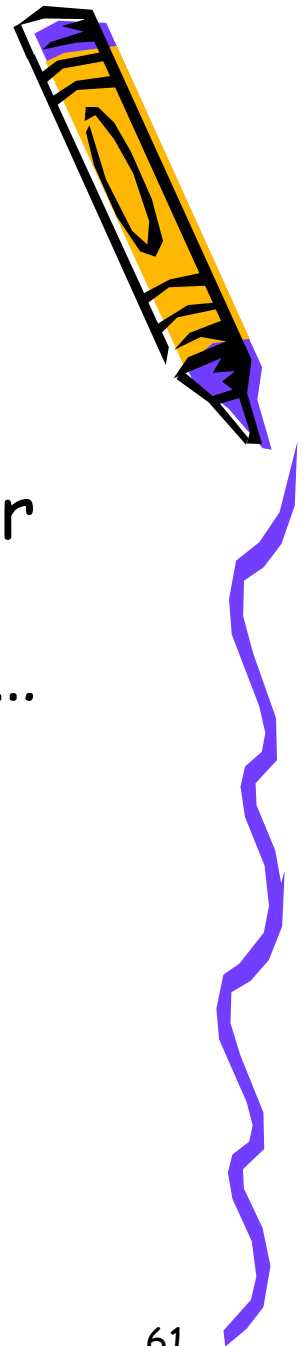
- What your readers should know is …
- I think it's more important to remember that …
- For the record, let me emphasize that …
- What I would rather say is …
- Our message is …
- Our commitment is to …
- It's more appropriate to say …

Things Not to Say

- "No Comment"
- Things that you are not qualified and responsible for taking about
- Points that are different from your messages and that don't help to achieve your story's goal
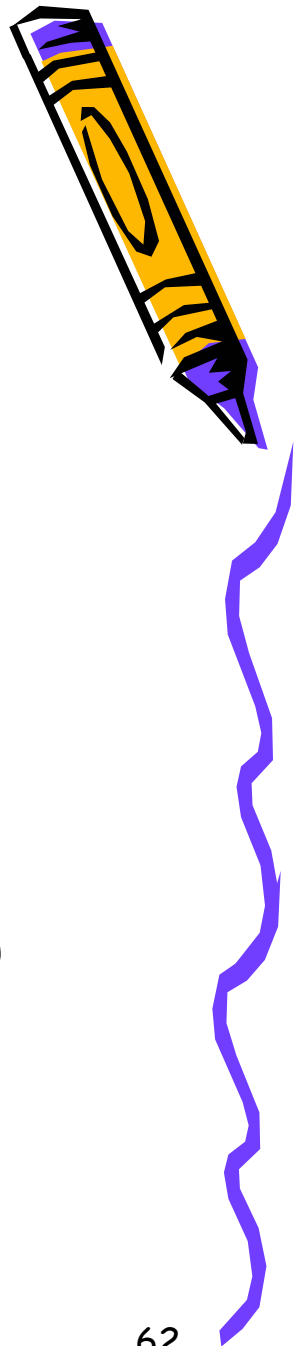
A Message You Always Have

- The EPA's Story or Mission Statement

  ..."EPA's commitment is to protect human health and the environment."

Risk Communication & Public Involvement Workshop
Key Topics & Suggested Reading

- I. Relationship and Trust Building
  - Teaching Method: Interactive Demonstration/Discussion/Relatable Experiences
  - Readings:
    - a. <u>Emotional Intelligence: Why It Can Matter More Than IQ</u> by Daniel Goleman, 1995
    - b. <u>Primal Leadership: Learning to Lead with Emotional Intelligence</u> by Daniel Goleman, 2002
    - c. <u>Good to Great</u> by Jim Collins, 2001
    - d. <u>On and Off the Record: Colosi on Negotiation</u> by Thomas Colosi, 1993
    - e. <u>One Small Step Can Change Your Life – The Kaisen Way</u> by Robert Maurer
    - f. <u>Principled-Centered</u> Leadership by Stephen Covey, 1992
- II. Attitude Formation … Basis for Verbal and Non-Verbal Communication
  - Teaching Method: Interactive Demonstration/Discussion/Relatable Experiences
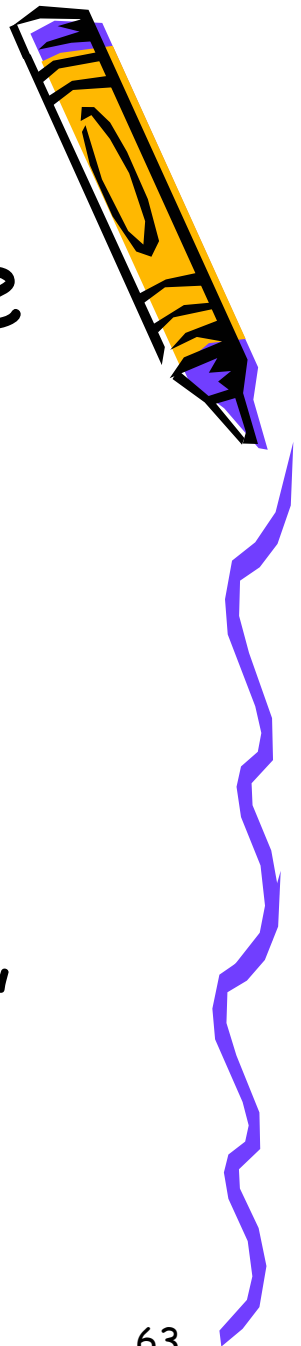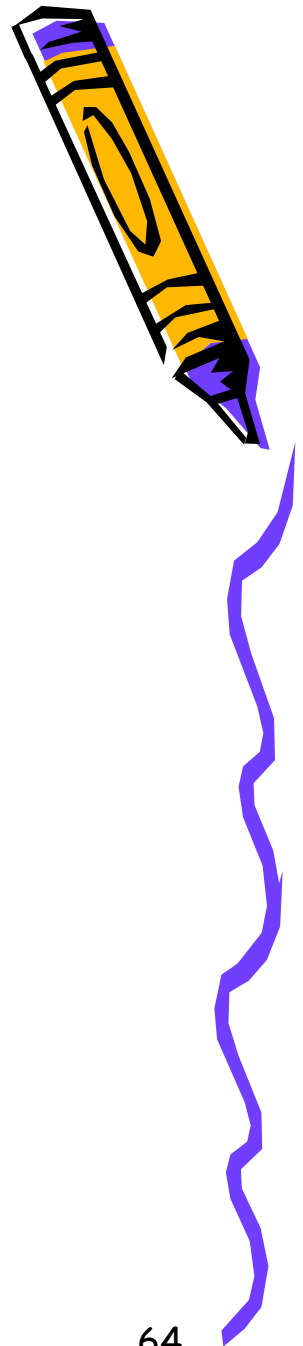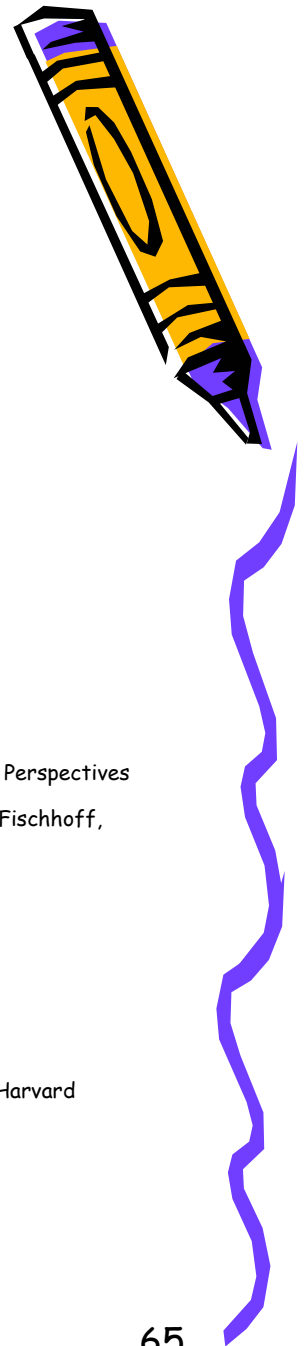 - Readings:
    - a. <u>The Magic of Conflict: Turning a Life of Work into a Work of Art</u> by Thomas Crum, 1988
    - b. <u>You Are The Message</u> by Roger Ailes, 1995
    - c. <u>Influence by Robert C</u>ialdini, 1993
- III. Goal Setting … To Assure/Persuade
  - Teaching Method: Interactive Demonstration/Discussion/Relatable Experiences
  - Readings:
    - a. <u>One Small Step Can Change Your Life: The Kaisen Way</u> by Robert Maurer
    - b. <u>On and Off the Record – Colosi on Negotiation</u> by Thomas Colosi, 1993
- IV. Dealing with Fear, Anger, Conflicts
  - Teaching Method: Interactive Demonstration/Discussion/Video Case Studies/Relatable Experiences
  - Readings:
    - a. <u>Getting to Yes: Negotiating Agreement Without Giving In</u> by Roger Fisher, 1991
    - b. <u>The Magic of Conflict: Turning a Life of Work into a Work of Art</u> by Thomas Crum, 1988
    - c. <u>On and Off the Record - Colosi on Negotiation</u> by Thomas Colosi, 1993
    - d. <u>Crucial Conversations: Tools for Talking When Stakes are High</u> by Kerry Patterson, 2002
    - e. <u>Leadership Effectiveness Training L.E.T.: The Proven People Skills for Today's Leaders Tomorrow</u> by Thomas Gordon, 2002
    - f. "Risk Communication with Grieving Communities" by Melissa Finucane,
    - g. <u>Getting Pass No: Negotiating Your Way From Confrontation to Cooperation</u> by William Ury, 1993

…….. Suggested Reading (cont.)

- V. Verbal and Non-verbal Communication
  - Teaching Method: Interactive Demonstration/Discussion/Relatable Experiences
  - Readings:
    - a. You Are the Message by Roger Ailes, 1995
    - b. How to Read Someone Like a Book by Gerard Nierenberg, 1990
- VI. Strategic Planning: Understanding the Power of Potential Stakeholders and the social/political landscape
  - Teaching Method: Interactive Demonstration/Discussion/Relatable Experiences
  - Readings:
    - a. Winning Community Support for Land Use Projects (1992) and Making Meetings Work (1996) by Debra Stein
    - b. One Small Step Can Change Your Life: The Kaisen Way by Robert Maurer
    - c. "A Ladder of Citizen Participation" by Arnstein, S.R. 1969, American Institute of Planners Journal 35, 216-224
- VII. Risk Perception: Understanding How Risk is Perceived
  - Readings:
  - Teaching Method: Interactive Demonstration/Discussion/Relatable Experiences
    - a. "Trust, Emotion, Sex, Politics, and Science: Surveying the Risk-Assessment Battlefield" by Paul Slovic (from Psychological Perspectives to Environmental and Ethics in Management, San Francisco: Jossey-Bass)
    - b. "Facts and Fears: Understanding Perceived Risks," in Societal Risk Assessment: How Safe is Safe? by Paul Slovic, Baruch Fischhoff, and Sarah Lichtenstein, 1980
    - c. "Perception of Risk" by Paul Slovic, Science 236, 280-285
- VIII. Risk Communication:
  - Teaching Method: Interactive Demonstration/Discussion/Relatable Experiences
  - Reading:
    - a. "Explaining Environmental Risk" by Peter Sandman, 1986
    - b. "Informing and Educating the Public About Risk" by Paul Slovic, Decision Research Report 85-5, November 1984
    - c. "Communicating Scientific Information about Health and Environmental Risks: Problems and Opportunities from a Social and Behavioral Perspective" by Vincent Covello, Detlof von Winderfeldt and Paul Slovic
    - d. "Hazard versus Outrage in the Public Perception of Risk" by Peter Sandman,1989
    - e. "Risk Communication: A Neglected Tool in Protecting Public Health," by David Ropeik and Paul Slovic, Risk In Perspective, Harvard Center for Risk Analysis, Vol. 11, Issue 2, June 2003

Introduction and Biographical Sketch for
Alvin Chun
Director, National Center for Risk Communication and Public Involvement
Office of the Science Advisor
USEPA, HQ
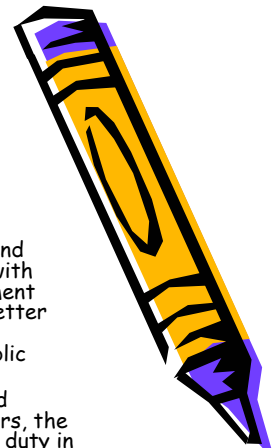
- Alvin Chun is a San Francisco native who provides training and consultation worldwide on public involvement, risk communication and organizational development. In March 2005 he accepted a position at USEPA as its national expert on these topics, and is charged with training and mentoring future trainers. He is currently Director of the National Center for Risk Communication and Public Involvement under the Office of the Science Advisor in EPA, HQ. The purpose of his work is to help managers, staff, and their organizations better understand how they can work and communicate to achieve vital results which they may have overlooked. One result that is often overlooked is the need to improve an organization's ability to manage communications to build a stronger reputation for securing public support.

- Just prior to starting with EPA, Alvin started his own consulting business, and provided workshops and consultation nationally and internationally to a host of organizations including, the US Navy, the Department of Homeland Security, the Army Corps of Engineers, the South Australian EPA, and the South Australian Centre for Public Health. In September of 2004, Captain Chun retired from active duty in the U.S. Public Health Service Commissioned Corps after an exciting 31-year career. As a Public Health Service officer, he has held a variety of technical and managerial positions in the U.S. Environmental Agency and the National Institute for Occupational Safety and Health. His last tour of duty was at the EPA where he served as their Senior Environmental Health Policy Advisor. At EPA, Captain Chun provided consultation and facilitated workshops and motivational seminars across the country and around the world to help organizations improve their reputation and the support they receive internally and externally to better accomplish their work. For example, he has helped to negotiate constructive relationships and solutions between EPA and its States, and between different agencies and the public.

- While with the Public Health Service, his clients included organizations within the U.S. and abroad. Among these organizations have been health and environmental agencies dealing with issues such as environmental risks and health outbreaks, emergency management offices, corporations, professional organizations and the U.S. military. In the environmental field, Captain Chun has worked with a range of government agencies including Federal and State environmental protection and health agencies, Departments of Interior, Health and Human Services, Agriculture, Transportation, Defense, and Homeland Security.

- Because of his unique expertise and dynamic presentations, Captain Chun was invited by then EPA Administrator Christine Whitman to give a special session on risk communication applying to environmental issues and events like the 9/11 terrorists attacks on the World Trade Center. Last year, he was a featured speaker at Washington Mutual Bank's National Executive Conference and spoke on "Bringing Out the Best in People."

- Captain Chun's mediation and organizational development expertise have been sought after by people from around the world to help plan transitions or to resolve difficult conflicts. Some of the controversial communication issues Captain Chun has worked on include Bovine Spongiform Encephalopathy (BSE or "Mad Cow Disease") in Switzerland, genetically modified organisms (GMO) in Australia and New Zealand, land development in the U.S., Australia and Germany, disease outbreaks in China, environmental clean ups in Taiwan, Mexico and at U.S. Superfund sites such as the General Electric Company located on the Hudson River, and at the Army's Rocky Mountain Arsenal in Colorado. In addition he has worked extensively on communication and organizational development issues related to the Department of Interior's off shore oil development program in California, drinking water issues in Hawaii, and asbestos clean up issues at Libby, Montana.

- Captain Chun is program director of the Communication Essentials Workshop for Environmental Managers at the University of California, Berkeley Extension Program. He is Adjunct Professor at the U.S. Navy's Civil Engineer Corps Officers School, where he teaches Environmental Negotiations to all branches of the military and environmental agencies working on environmental issues. Captain Chun is also a workshop leader at the U.S. Coast Guard Training Center, and the University of Adelaide in Australia. At the University of Adelaide he is currently working with the Australian government to establish their first Risk Communication and Public Involvement Training Program for environmental health professionals in the Pacific Rim Region. He guest lectures at the University of California Medical School in San Francisco, and is often invited to speak at various professional organizations.

- Captain Chun received his B.S. in engineering at the University of California, Berkeley, and M.S. in engineering at Stanford University. He can be contacted at EPA, Region 9 in San Francisco at (415) 972- 3720 or by email: chun.alvin@epa.gov or alternatively at riskcom1@yahoo.com